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10/798,824

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Asad Islam

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7590

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EXAMINER

DANG, HUNG Q

ART UNIT

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/798,824

Applicant(s)

ISLAM ET AL.

Examiner

Hung Q. Dang

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-41 and 43-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-41 and 43-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09/07/04, 10/06/05, 01/06/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 11/02/2007 have been fully considered but they are not persuasive.

At page 13, Applicant argues that "Naimpally has nothing to do with compressed domain editing. Wee has nothing to do with HDTV decoder. There is no suggestion in Wee that a low resolution HDTV decoder be used in the compressed domain processor. There is no suggestion in Naimpally that a low resolution HDTV decoder be used in a compressed domain processing device. Naimpally does not suggest decoding the VLC coded binary form prior to modifying a bitstream for compressing domain video editing."

In response, the Examiner respectfully submits that Wee describes a method for editing video signals in compressed domain (column 5, lines 47-51), in which the input signals are MPEG signals (column 6, lines 15-24) encoded with variable-length code (column 7, lines 28-37). The method involves decoding only a small number of tail frames and only a small number of head frames as described in column 3, line 64 – column 4, line 3).

To perform the decoding step, definitely an MPEG decoder is needed. Naimpally now discloses an MPEG decoder. The Examiner sees no reason that makes incorporating an MPEG decoder into a method that performs decoding of an MPEG signal. For that reason, the combination of Wee and Naimpally as described is reasonable and obvious.

Further, an MPEG decoder decodes MPEG signals encoded with variable-length codes to a decoded format. One of ordinary skill in the art must recognize that the decoded format is in binary format.

For that reason, the claims stand rejected as previously presented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-11, 15-22, 25-32, 35-41, and 43-50 are rejected under 35

U.S.C. 103(a) as being unpatentable over Wee et al. (US Patent 6,104,441) and Naimpally et al. (US Patent 5,477,397).

Regarding claim 3, Wee et al. disclose a method of editing one or more input video frames in a bitstream for providing one or more edited video frames (column 3, line 34 – column 4, line 3), the edited video frames including at least one editing effect specified by one or more editing parameters (column 3, lines 51-57; column 7, lines 5-8), said method comprising: identifying frame characteristics of at least one input video frame in the bitstream, wherein the input video frame comprises video data (column 8, line 67 - column 9, line 20; column 11, lines 9-32); and modifying the bitstream in the compressed domain based on the frame characteristics of said at least one frame and the specified editing parameters for providing a modified bitstream indicative of said edited video frames (column 8, lines 33-61; column 11, lines 19-30). Further, Wee et al.

also disclose the video data are coded with MPEG format (column 6, lines 15-24) and are coded with variable-length code (column 7, lines 28-37; column 17, lines 11-13), and said method further comprising: converting the MPEG encoded video data into a decoded format prior to said modification (column 11, lines 19-30). However, Wee et al. do not disclose said method further comprising: converting the VLC coded video data into a binary form prior to said modifying.

Naipally et al. disclose a MPEG decoding process that converts the VLC coded video data into a binary form (column 5, lines 5-10).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the converting the VLC coded video data into a binary form disclosed by Naipally et al. into the decoding process used in the method disclosed by Wee et al. to make it compatible with MPEG standard, which is an existing standard.

Regarding claim 4, Naipally et al. also disclose expanding, or inversely quantizing, the VLC coded video data (column 5, lines 5-10).

Regarding claim 5, Naipally et al. also disclose processing the VLC coded video data in an inverse cosine transform operation (column 5, lines 10-15).

Regarding claim 6, Wee et al. also disclose identifying frame characteristics of at least one further video frame in the bitstream (column 11, lines 9-19); and modifying the bitstream in a further domain different from the compressed domain based on the frame characteristics of said at least one further video frame for providing a further modified bitstream (column 11, lines 19-30).

Regarding claim 7, Wee et al. also disclose combining at least a part of the further modified bitstream with at least a part of the modified bitstream (column 11, lines 19-30).

Regarding claim 8, Wee et al. also disclose said further domain comprises a spatial domain (column 11, lines 19-30).

Regarding claim 9, Wee et al. also disclose said further domain comprises a file format domain (column 11, lines 19-30 – decoded data must have a different file format than encoded data).

Regarding claim 10, Wee et al. also disclose the edited video frames comprises edited frame data (column 16, lines 41-45); and said method further comprising converting the edited frame data into an edited media file for use in a media player (column 6, lines 52-58; Fig. 9; column 16, lines 1-46).

Regarding claim 11, Wee et al. also disclose providing format information indicative of editing properties of the edited frame data so as to convert the edited frame data into the edited media file compatible to the media player (column 7, lines 50-53; column 6, lines 52-58; Fig. 9; column 16, lines 1-46).

Regarding claim 15, Wee et al. also disclose the editing parameters are specified based on one or more preferences chosen by a user (column 3, lines 51-57; column 6, lines 37-40).

Regarding claim 16, Wee et al. disclose an apparatus for editing one or more input video frames in a bitstream for providing one or more edited video frames (column 3, line 34 – column 4, line 3), the edited video frames including at least one editing

effect specified by one or more editing parameters (column 3, lines 51-57; column 7, lines 5-8), said editing device comprising: a frame analyzer module, responsive to signals indicative of the video frame data, for identifying frame characteristics of at least one input video frame in a bitstream (column 8, line 67 - column 9, line 20; column 11, lines 9-32); and a compressed domain processing module, responsive to signals indicative of the frame characteristics, for modifying the video frame data based on the frame characteristics of said at least one frame and the specified editing parameters for providing modified video data indicative of edited video frames (column 8, lines 33-61; column 11, lines 19-30); Further, Wee et al. also disclose the video data are coded with MPEG format (column 6, lines 15-24) and are coded with variable-length code (column 7, lines 28-37; column 17, lines 11-13), and said method further comprising: converting the MPEG encoded video data into a decoded format prior to said modification (column 11, lines 19-30). However, Wee et al. do not disclose said method further comprising: converting the VLC coded video data into a binary form prior to said modifying.

Naimpally et al. disclose a MPEG decoding process that converts the VLC coded video data into a binary form (column 5, lines 5-10).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the converting the VLC coded video data into a binary form disclosed by Naimpally et al. into the decoding process used in the method disclosed by Wee et al. to make it compatible with MPEG standard, which is an existing standard.

Regarding claim 17, Wee et al. also disclose the frame analyzer further identifies frame characteristics of at least one further video frame in the bitstream (column 11, lines 9-19), said device further comprising: a spatial domain processing module, responsive to signals indicative of the frame characteristics of the further video frame, for modifying video frame data in the further video frame based on the frame characteristics of the further video frame for providing further modified video data (column 11, lines 19-30).

Regarding claim 18, Wee et al. also disclose a module for combining at least a part of the further modified video data with at least a part of the modified video data (column 11, lines 19-30).

Claim 19 is rejected for the same reason as discussed in claim 10 above.

Regarding claim 20, Wee et al. also disclose the format composer module comprises a file format composer (Fig. 9; column 16, lines 1-46).

Regarding claim 21, Wee et al. also disclose the format composer module comprises a media format composer (Fig. 9; column 16, lines 1-46).

Claim 22 is rejected for the same reason as discussed in claim 11 above.

Regarding claim 25, Wee et al. also disclose a format composer, responsive to the combined signals, for converting the combined data into an edited media file for use in a media player (column 6, lines 52-58; Fig. 9; column 16, lines 1-46).

Regarding claim 26, Wee et al. disclose a media coding system, comprising: a media encoder for encoding media data for providing encoded media data in a plurality of frames having frame data (column 10, lines 12-19); a media editing device,

responsive to the encoded media data, for providing edited data including one or more edited frames, the edited frames having a least one editing effect specified by one or more editing parameters (column 10, lines 12-19); and a media decoder, responsive to the edited data, for providing decoded media data (column 10, lines 12-19), wherein the editing device comprises: a frame analyzer module, responsive to signals indicative of encoded data, for identifying frame characteristics of at least one frame in the encoded data (column 11, lines 9-30); and a compressed domain processing module, responsive to signals indicative of the frame characteristics, for modifying the encoded frame data based on the frame characteristics of said at least one frame and the specified editing parameters for providing modified media data indicative of said edited media frames (column 8, lines 33-61; column 11, lines 9-30). Further, Wee et al. also disclose the video data are coded with MPEG format (column 6, lines 15-24) and are coded with variable-length code (column 7, lines 28-37; column 17, lines 11-13), and said method further comprising: converting the MPEG encoded video data into a decoded format prior to said modification (column 11, lines 19-30). However, Wee et al. do not disclose said method further comprising: converting the VLC coded video data into a binary form prior to said modifying.

Naipally et al. disclose a MPEG decoding process that converts the VLC coded video data into a binary form (column 5, lines 5-10).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the converting the VLC coded video data into a binary form disclosed by Naipally et al. into the decoding process used in the method

disclosed by Wee et al. to make it compatible with MPEG standard, which is an existing standard.

Regarding claim 27, Wee et al. also disclose the media encoder has a connectivity mechanism and the editing device has a further connectivity mechanism so as to allow the editing device to communicate with the media decoder in order to receive therefrom encoded media data in a wireless fashion (Fig. 3; column 6, lines 52-58).

Regarding claim 28, Wee et al. also disclose the media decoder has a connectivity mechanism and the editing device has a further connectivity mechanism so as to allow the editing device to provide the edited data to the media decoder in a wireless fashion (Fig. 3; column 6, lines 52-58).

Regarding claim 29, Wee et al. also disclose the media encoder and the media editing device are integrated in an expanded encoding system (Fig. 9; column 15, line 52 – column 16, line 7).

Regarding claim 30, Wee et al. also disclose the media decoder has a connectivity mechanism and the expanded encoding system has a further connectivity mechanism so as to allow the expanded encoding system to provide the edited data to the media decoder in a wireless fashion (Fig. 3; Fig. 9; column 6, lines 52-58).

Regarding claim 31, Wee et al. also disclose the media decoder and the media editing device are integrated in an expanded decoding system (Fig. 3; Fig. 9; column 15, line 52 – column 16, line 7).

Regarding claim 32, Wee et al. also disclose the media encoder has a connectivity mechanism and the expanded decoding system has a further connectivity mechanism so as to allow the media encoder to provide the edited data to the expanded decoding system in a wireless fashion (Fig. 3; Fig. 9; column 6, lines 52-58).

Regarding claim 35, Wee et al. disclose an apparatus capable of editing media files for providing one or more editing effects in one or more edited video frames (Fig. 3; column 3, line 34 – column 4, line 3), the editing media files comprising one or more input video frames, said communication device comprising: a video editing application module for specifying editing effects on one or more input video frames, the input video frames comprising video frame data (Fig. 3; column 6, lines 8-15, 25-51); and a video editing system comprising: a compressed domain processing module, responsive to signals indicative of the input video frames, for modifying video frame data in said one or more video frames based on the specified editing effects for providing modified video data indicative of edited video frames (Fig. 3; column 6, lines 34-51). Further, Wee et al. also disclose the video data are coded with MPEG format (column 6, lines 15-24) and are coded with variable-length code (column 7, lines 28-37; column 17, lines 11-13), and said method further comprising: converting the MPEG encoded video data into a decoded format prior to said modification (column 11, lines 19-30). However, Wee et al. do not disclose said method further comprising: converting the VLC coded video data into a binary form prior to said modifying.

Naimpally et al. disclose a MPEG decoding process that converts the VLC coded video data into a binary form (column 5, lines 5-10).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the converting the VLC coded video data into a binary form disclosed by Naimpally et al. into the decoding process used in the method disclosed by Wee et al. to make it compatible with MPEG standard, which is an existing standard.

Regarding claim 36, Wee et al. also disclose said video editing system further comprises: a frame analyzer module, responsive to signals indicative of the video frame data, for identifying frame characteristics of at least one input video frame, so as to allow the compressed domain processing module to modify the video frame data also based on the frame characteristics (column 8, lines 23-61; column 11, lines 13-19).

Regarding claim 37, Wee et al. also disclose the frame analyzer further identifies frame characteristics of at least one further video frame in the bitstream (column 11, lines 9-19), and wherein the video editing system further comprises: a spatial domain processing module, responsive to signals indicative of the frame characteristics of the further video frame, for modifying video frame data in the further video frame based on the frame characteristics of the further video frame and the specified editing parameters for providing further modified video data (column 11, lines 19-30).

Regarding claim 38, Wee et al. also disclose the video editing system further comprises: a module for combining at least a part of the further modified video data with at least a part of the modified video data (column 11, lines 19-30).

Regarding claim 39, Wee et al. also disclose the video editing system further comprises: a format composer module, responsive to signals indicative of the modified

video data, for converting the modified video data into an edited media file for use in a media player (Fig. 3; column 6, lines 52-58; Fig. 9; column 16, lines 1-46).

Regarding claim 40, Wee et al. also disclose a display screen for display video images based on modified video data (Fig. 3; column 6, lines 40-58).

Regarding claim 41, Wee et al. also disclose a mobile terminal (column 6, lines 52-58; Fig. 3).

Claim 43 is rejected for the same reason as discussed in claim 3 above.

Claim 44 is rejected for the same reason as discussed in claim 6 above.

Claim 45 is rejected for the same reason as discussed in claim 8 above.

Claim 46 is rejected for the same reason as discussed in claim 9 above.

Claim 47 is rejected for the same reason as discussed in claim 7 above.

Claim 48 is rejected for the same reason as discussed in claim 39 above.

Claim 49 is rejected for the same reason as discussed in claim 1 above.

Claim 50 is rejected for the same reason as discussed in claim 10 above.

Claims 12-14 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee et al. (US Patent 6,104,441) and Naimpally et al. (US Patent 5,477,397) as applied to claims 3-11, 15-22, 25-32, 35-41, and 43-50 above, and further in view of Abe (US Patent 6,618,491).

Regarding claim 12, see the teachings of Wee et al. and Naimpally et al. as discussed in claim 10 above. However, the proposed combination of Wee et al. and Naimpally et al. does not disclose the bitstream also comprises audio data separable

from the video data in the input video frames, said method further comprising:
combining the audio data with edited frame data prior to said converting.

Abe discloses a bitstream comprises audio data separable from the video data in the input video frames (column 3, lines 32-35). Abe further discloses combining the audio data with video frame (column 4, lines 58-64; column 7, lines 5-16).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the audio data separable form video data and combining audio data with video frame as disclosed by Abe into the method disclosed by Wee et al. and Naimpally et al. prior the converting step so that to make the video data having audio associated with it. Video having audio is more entertaining to watch. Besides, it is also more informative.

Regarding claim 13, Abe also discloses modifying the audio data prior to said combining (column 4, lines 37-44).

Regarding claim 14, Abe also discloses providing timing information so as to maintain synchronization between the audio data and edited frame data in said combining (column 4, lines 44-51, 58-64; column 5, lines 1-4, 10-18).

Regarding claim 23, see the teachings of Wee et al. and Naimpally et al. as discussed in claim 16 above. However, the proposed combination of Wee et al. and Naimpally et al. does not disclose the bitstream also comprises audio data, said device further comprising: a format parser module, for separating the audio from the video frame data in the input video frames, and an audio processing module for modifying the audio data for providing modified audio data, if so desired.

Abe discloses the bitstream comprises video and audio data (column 3, lines 32-35), said device further comprising: a format parser module, for separating the audio from the video frame data in the input video frames (column 3, lines 32-35), and an audio processing module for modifying the audio data for providing modified audio data, if so desired (column 4, lines 37-44).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the bitstream comprising both video data and audio data, the format parser module, and the audio processing module disclosed by Abe into the method disclosed by Wee et al. and Naimpally et al. so that to make the video data having audio associated with it. Video having audio is more entertaining to watch. Besides, it is also more informative.

Regarding claim 24, Abe also discloses a combination module for combining the modified video data and the modified audio data for providing combined signals indicative of the combined data (column 4, lines 44-51, 58-64; column 5, lines 1-4, 10-18; column 7, lines 5-16).

Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wee et al. (US Patent 6,104,441) and Naimpally et al. (US Patent 5,477,397) as applied to claims 3-11, 15-22, 25-32, 35-41, and 43-50 above, and further in view of Ikonen (US 2003/0005329).

Regarding claim 33, see the teachings of Wee et al. and Naimpally et al. as discussed in claim 30 above. However, the proposed combination of Wee et al. and

Naimpally et al. does not disclose each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module.

Ikonen discloses a bluetooth connectivity mechanism (claim 9).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the bluetooth connectivity mechanism disclosed by Ikonen into the media coding system disclosed by Wee et al. and Naimpally et al. to have each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module because bluetooth connections have lower power consumption.

Regarding claim 34, see the teachings of Wee et al. and Naimpally et al. as discussed in claim 30 above. However, the proposed combination of Wee et al. and Naimpally et al. does not disclose each of the connectivity mechanism and the further connectivity mechanism comprises an infrared connectivity module.

Ikonen discloses an infrared connectivity module ([0019]; [0020]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the infrared connectivity module disclosed by Ikonen into the media coding system disclosed by Wee et al. and Naimpally et al. to have each of the connectivity mechanism and the further connectivity mechanism comprises an infrared connectivity module to provide the system with capability of being controlled by remote controllers.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is 571-270-1116. The examiner can normally be reached on M-Th:7:30-6:00.

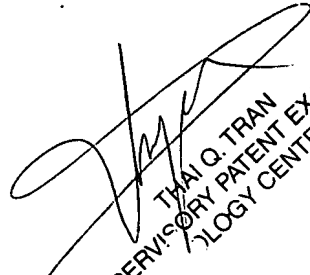
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Hung Dang
Patent Examiner



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